Durability performance of repaired reinforced concrete beams

Dehwah Hamoud Ahmad Farhan, Basunbul Islem Ahmad, Maslehuddin Mohammed, Al-Sulaimani Ghazi Jamil, Baluch Mohammed Hussain

ACI Materials Journal
Vol. 91, Issue.2, 1994

Abstract: In this investigation, the durability performance, namely, resistance to reinforcement corrosion of reinforced concrete beams repaired with ordinary cement mortar, polymer-based cementitious mortar, and ferrocement mortar was evaluated. The effect of temperature fluctuations, representative of the environmental conditions in the arid regions, on the corrosion-resisting characteristics of these repair materials was also evaluated. The performance of these materials was compared with unrepaired concrete beams. Results indicate superior performance by ordinary cement mortar compared to other materials. However, in the structural components subjected to thermal variations, ferrocement mortar was observed to be more beneficial.